PHENIX

Technical Support 2006

PHENIX
WEEKLY PLANNING

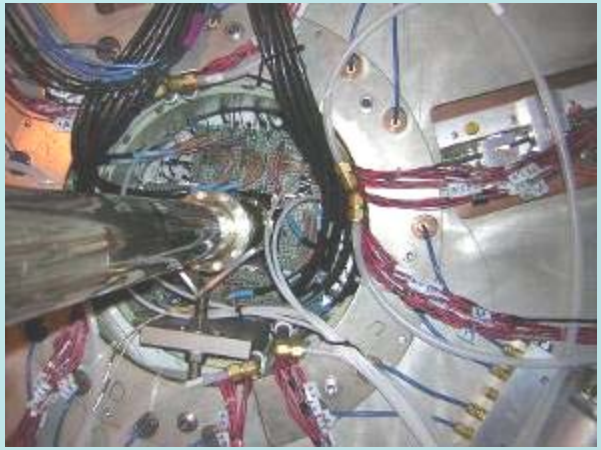
12/28/06

Don Lynch

PHENIX

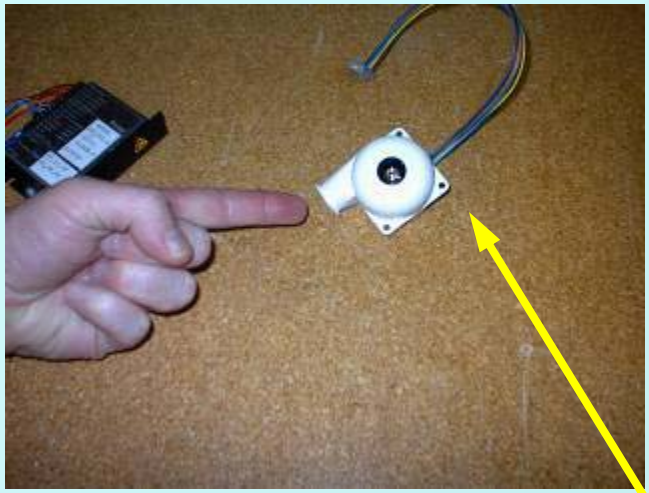
Technical Support 2006

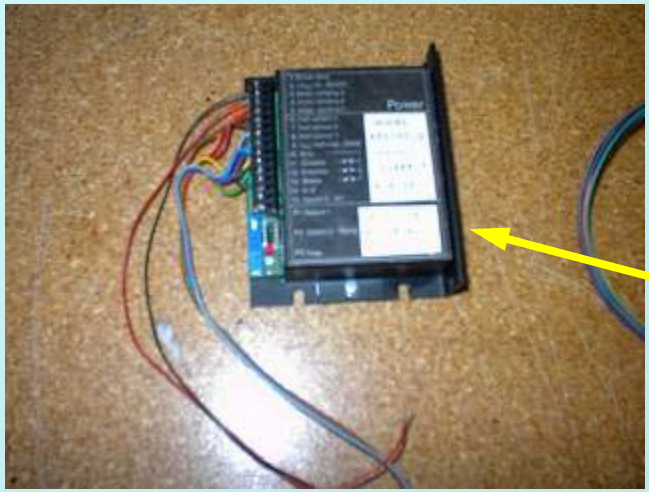
Commissioning in Progress



HBD Electronics Cooling

Technical Support 2006





Blower

Speed Controller

Still Needed for Approval to Operate:

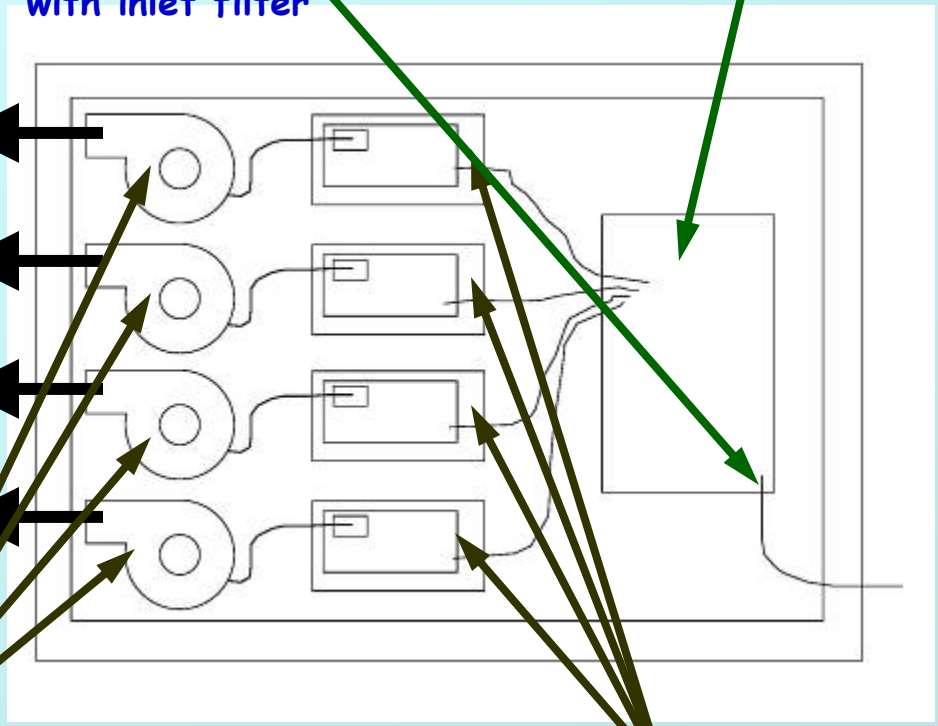
- Where will fan(s) be mounted? – CM base "cubby hole" fan model and specs to be forwarded to Safety
- Written design and operation description and– To be forwarded to Safety
- Order for 5 blowers & drivers (4 +1 spare) is in the works 1 set Received, 3 sets shipped 12/18, 1 set back ordered.

4 X BD² Electronics Cooling

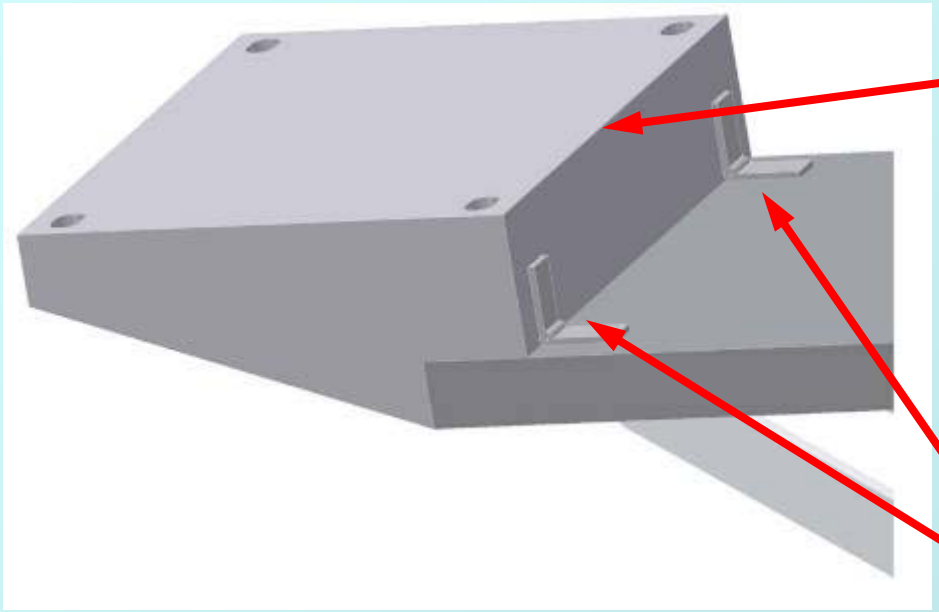
Technical Support 2006

30 V, 10 Amp Power Suply
(~1.5 Amps per blower)

Enclosure box
with inlet filter



CM Lift Table



Hinges on wing steps

Technical Support 2006

Remaining Schedule

Technical Support 2006

	Start	Complete
TOF West, RXNP, MPC N		
Electronics Installation/Commissioning	in progress	12/30/06
HBD		
HBD preamp cooling system	10/1/06	12/30/06
(temporary LN2 system in-place)		
Electronics Installation/Commissioning	11/1/06	12/30/06
Crane Inspection	12/27/06	12/28/06
MuID commissioning	1/8/07	1/15/07

Remaining Schedule (cont'd)

Technical Support 2006

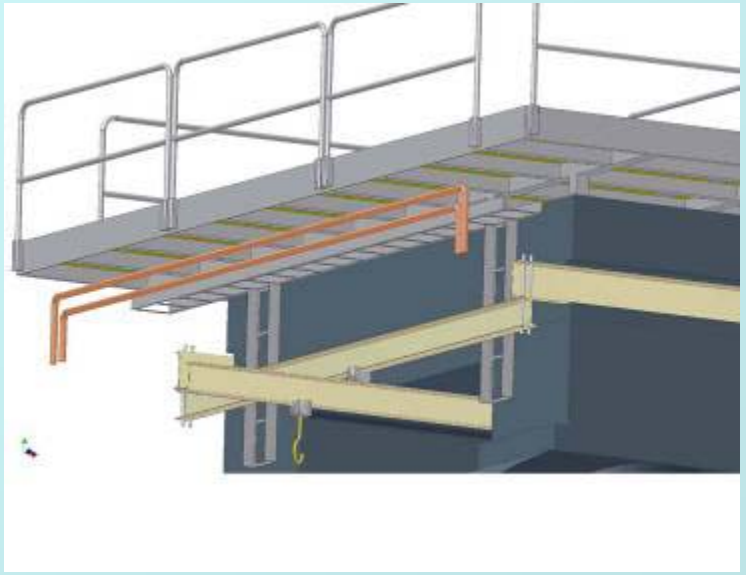
	Start	Complete
Pink Sheeting & Blue Sheeting	Done	Done
Move MMS full North	Done	Done
Rebuild Rolling door	Done	Done
Close rolling door	Jan 8	Jan 8
Start Flammable Gas Flow & 2 man watch shif	Jan 9	Jan 9
All Up Commissioning/ Cosmic Ray Run /	RS+1 D	RS+3 W
Install beam pipe collar	RS-1 W	RS-2 D
RHIC Cooldown Begins	RS	RS
Beam in yellow ring	RS+1 W	RS+1 W
Beam in blue ring	RS+2 W	RS+2 W
RHIC beam conditioning	RS+3 W	RS+3 W
Shutdown Concluded/Start of Physics Run	RS+3 W	RS+3 W

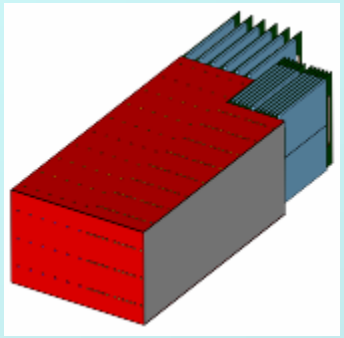
Looking Ahead

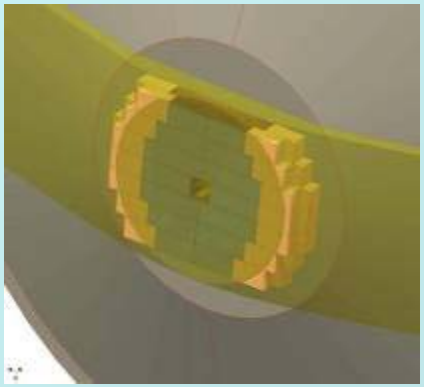
Technical Support 2006

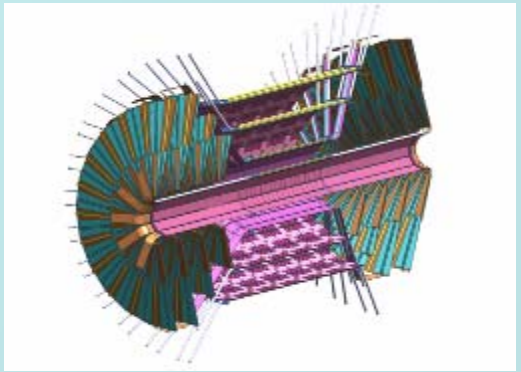
What's up for next year and beyond

- New CM Crane
- New Beam pipe design
- Muon RPC trigger design
- VTX/FVTX design
- NCC design
- MuTr upgrade
- Infrastructure improvements









PHENIX

Technical Support 2006

PHENIX Annual Safety Review Follow Up: Action Items

- Inspect and approve the new access to the PHENIX bridge platform. (Etkin/ Cirnigliaro, done)
- Carry out the pink sheeting of all racks. (Haggerty / Giannotti, Nov. 16, 2006) (done)
- Carry out the Blue Sheeting (CAS, Pearson, done)
- Add to the Blue sheeting the requirement that the new PHENIX crash button should be tested annually (Pearson done)
- Provide the new flammable gases leak rates (Pisani, Dec 30, 2006)
- Review and approve the new TOFW re-circulating gas system (Etkin Jan. 15, 2006)
- For the HSB gas transparency system check that the associated electrical systems are NRTL certified. (Giannotti, Dec 30, 2006)
- Update the PHENIX sweep procedures (Sampson, done?)
- Determine if additional crash cords are required on the new platforms (Asher Etkin and PASS, done)
- Provide J. Levesque the manufacturer's flammability rating of the PHENIC bridge cover or mat. (Lynch, Dec. 15, 2006) (done and approved)
- Review the proposed HBD electronics cooling. (Pearson / Makdisi, done?)
- Review the SEU (single event upset) test. (Makdisi done?)

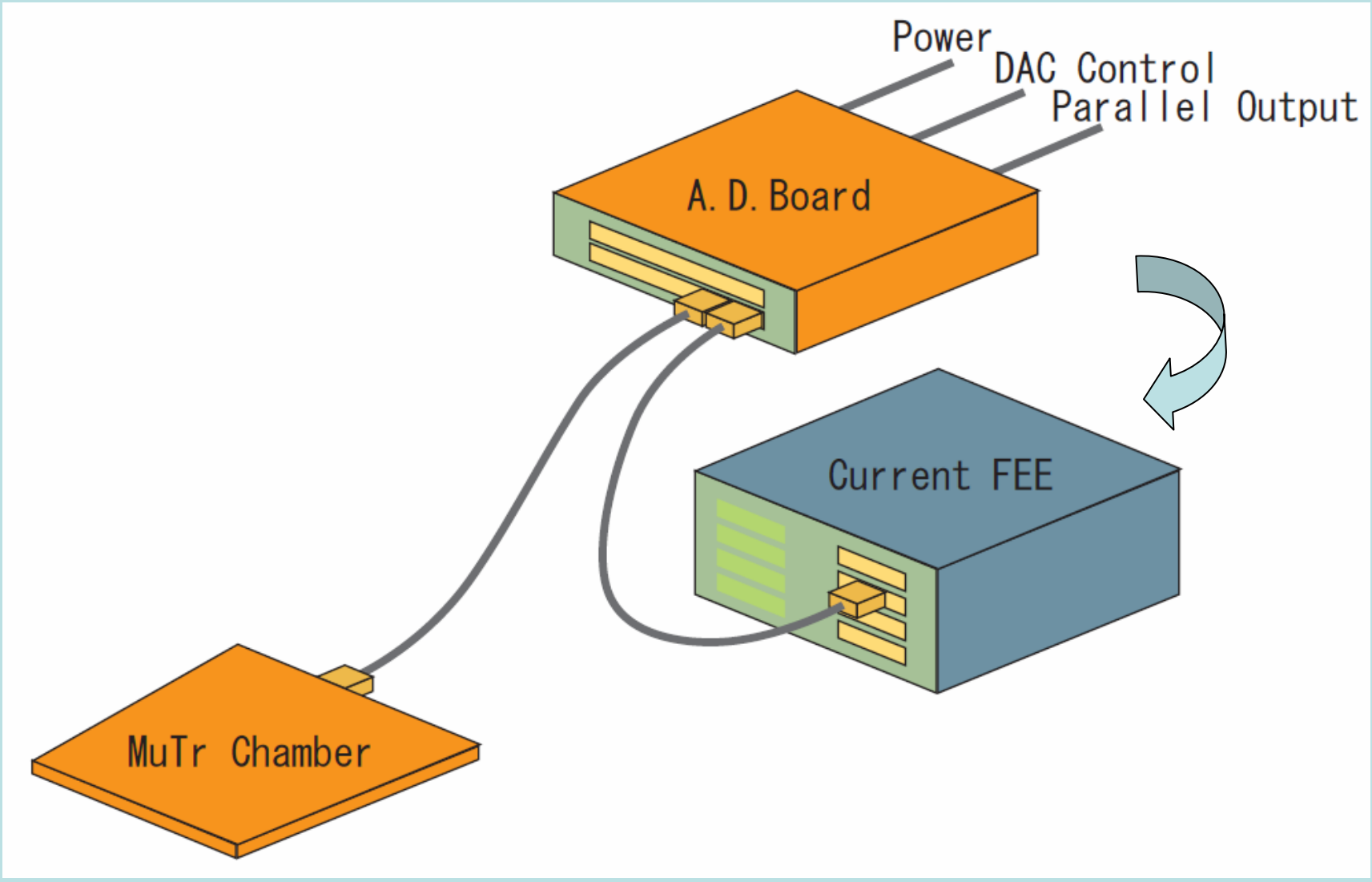
PHENIX Annual Safety Review Follow Up: Action Items

Technical Support 2006

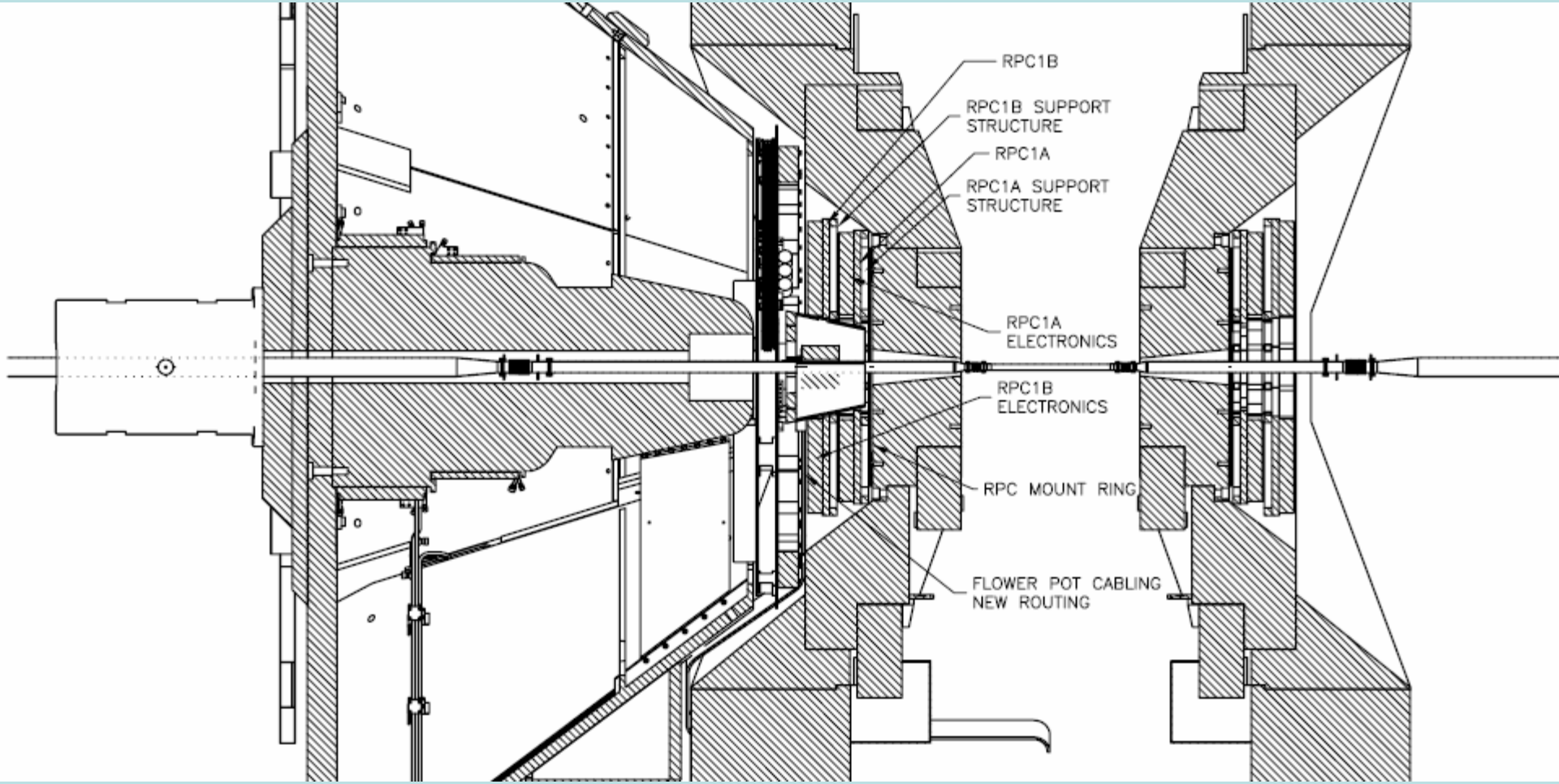
General:

- Update the PHENIX ECR. (Essendelft, Dec. 30, 2006) (done)
- Carry out a magnetic safety review and measure the magnetic field on the bridge platform (Cirnigliaro / Pearson, Dec. 30, 2006) (done)
- **Update the PHENIX emergency procedure. (Franz / Makdisi, done?)**
- A walk through of the PHENIX detector prior to introduction of flammable gas. (Makdisi, done)
- **Update the documented work procedures. (O'Brien / Lynch, Feb 1, 2007)**
- **Establish trained PHENIX watch shifts. (O'Brien, Jan. 9, 2007)**

ADBoard Installation

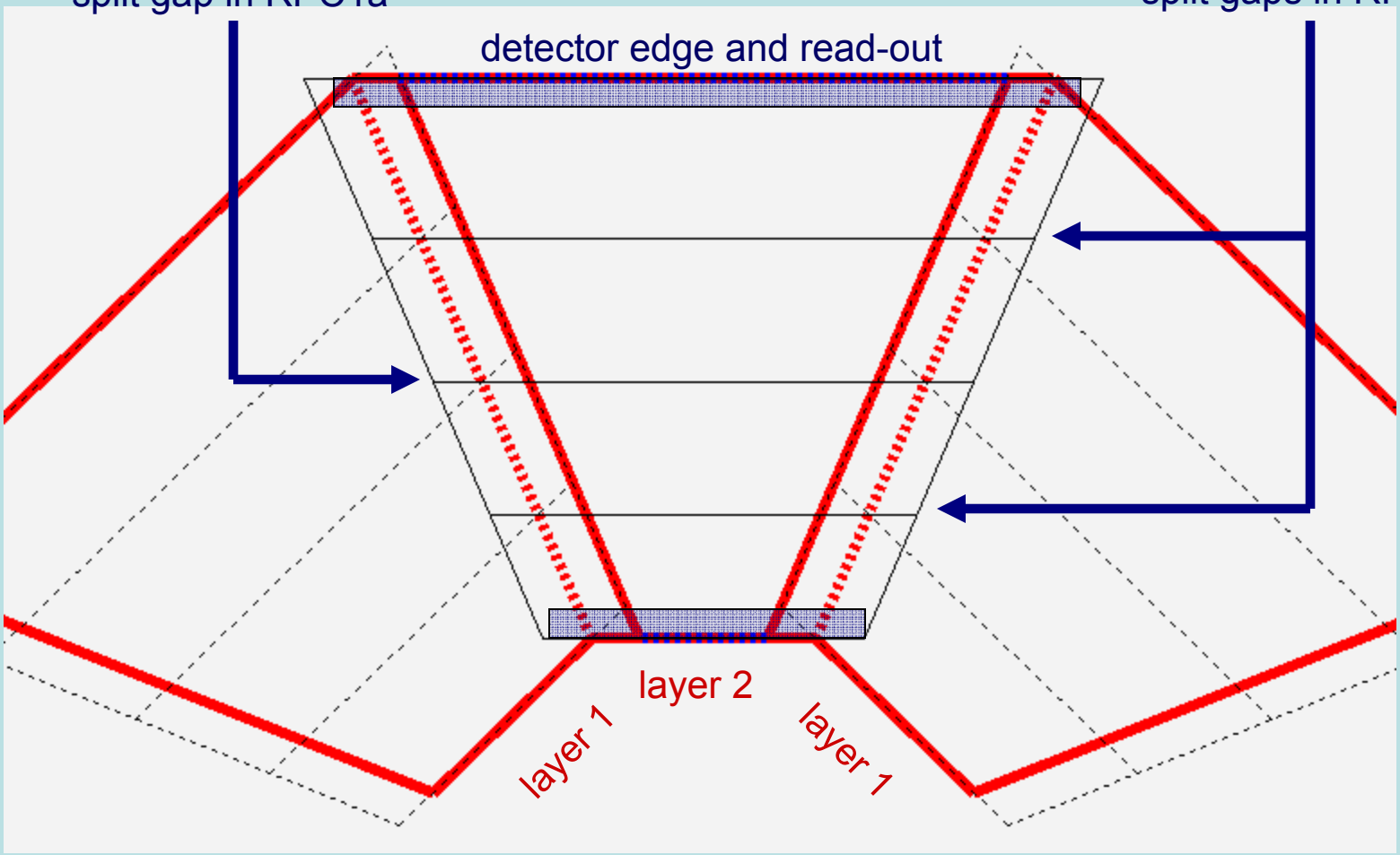


RPC1 Section View

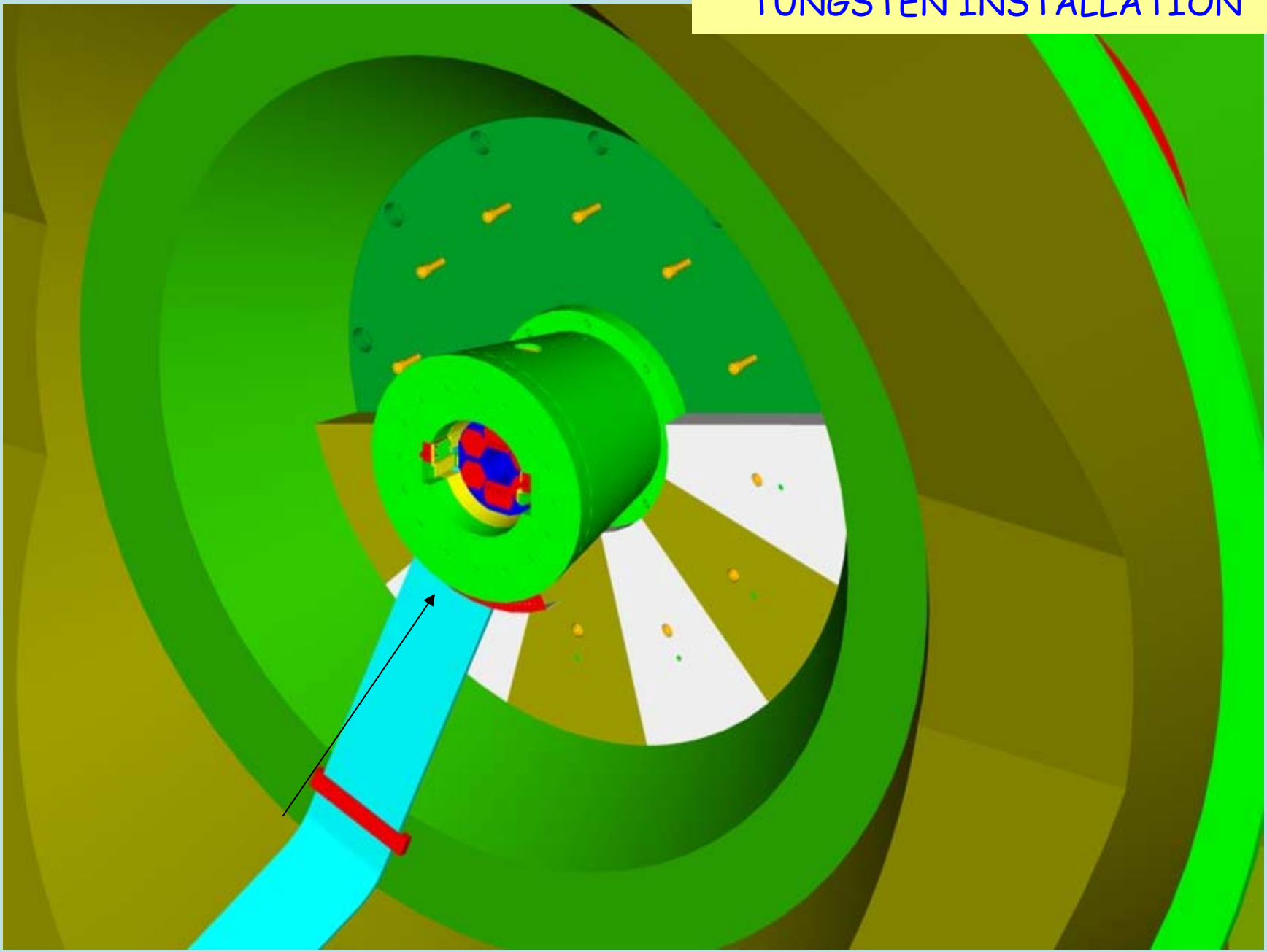


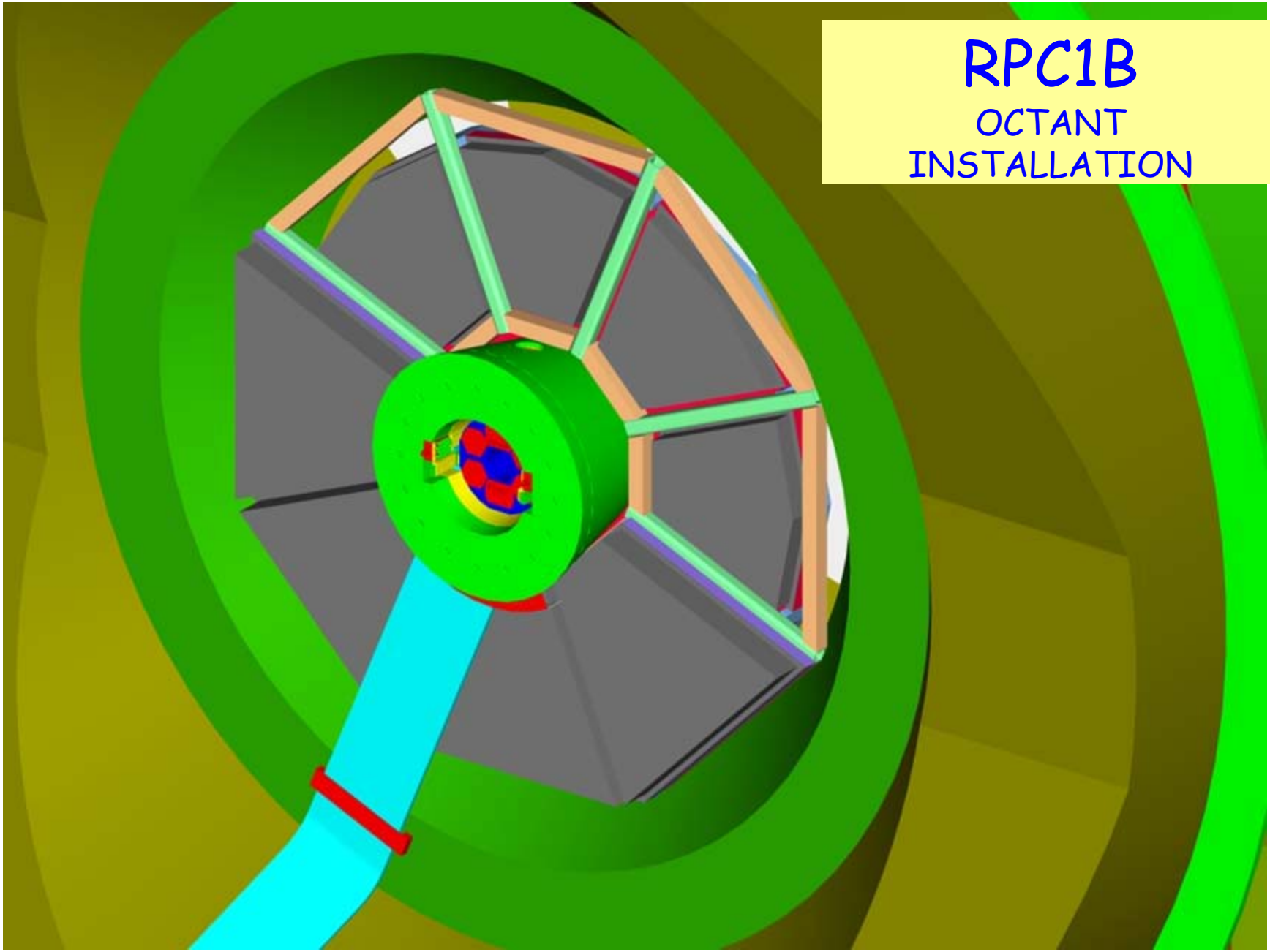
RPC1a&b

cover octants with one detector module
overlap in phi
staggered split gaps
additional dead area in theta

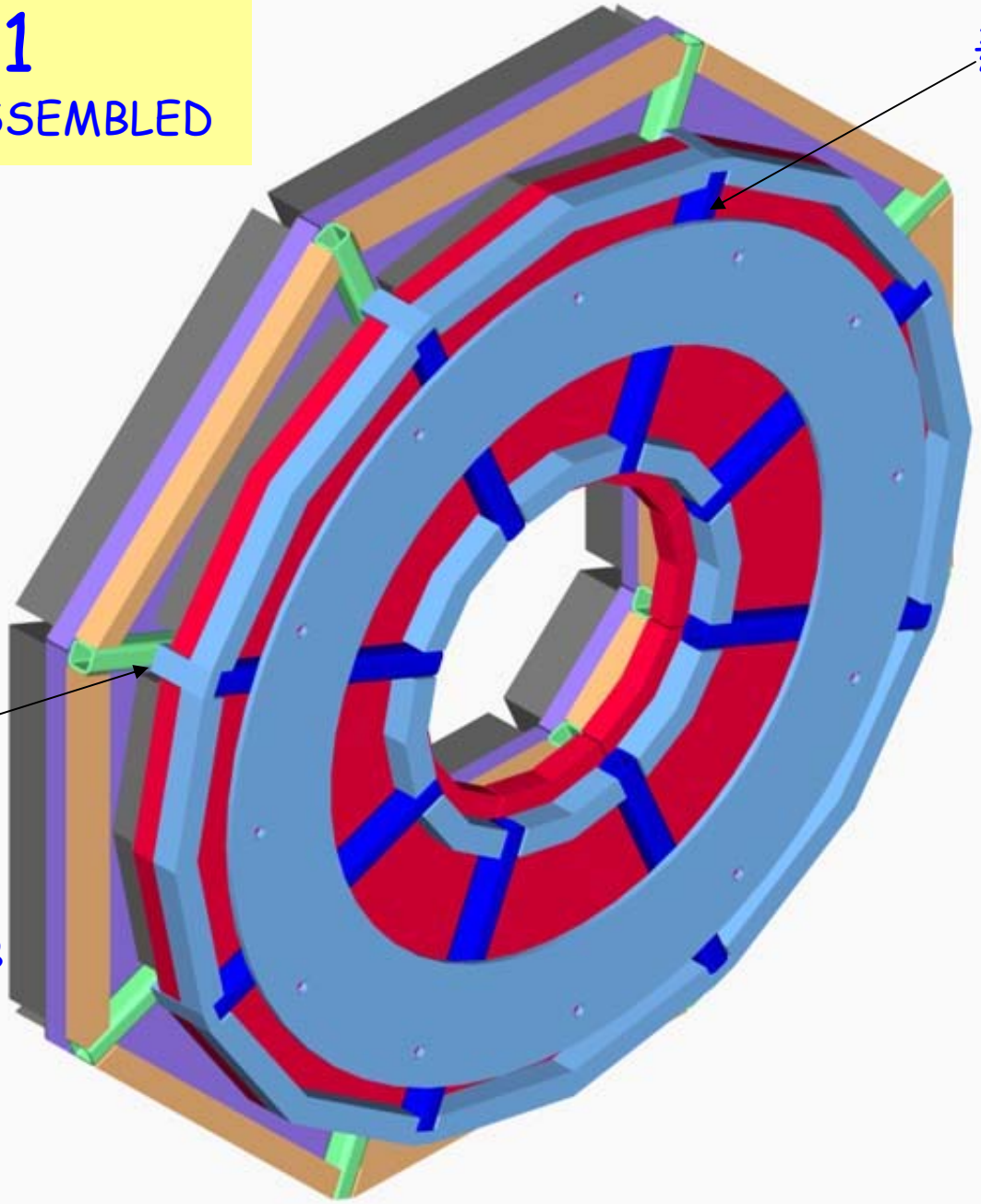


TUNGSTEN INSTALLATION




RPC1B
OCTANT
INSTALLATION

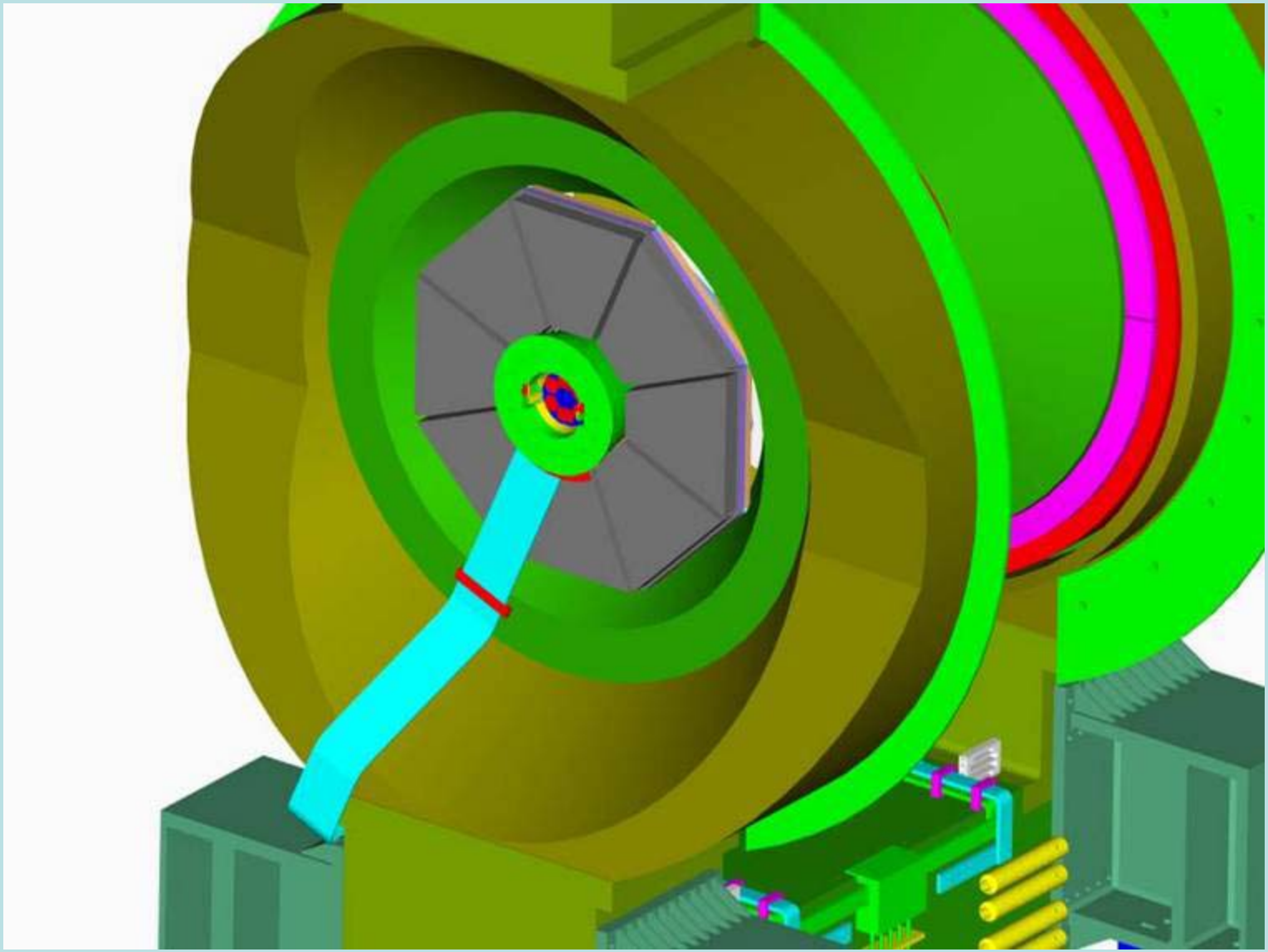
RPC1
UPSTREAM ASSEMBLED



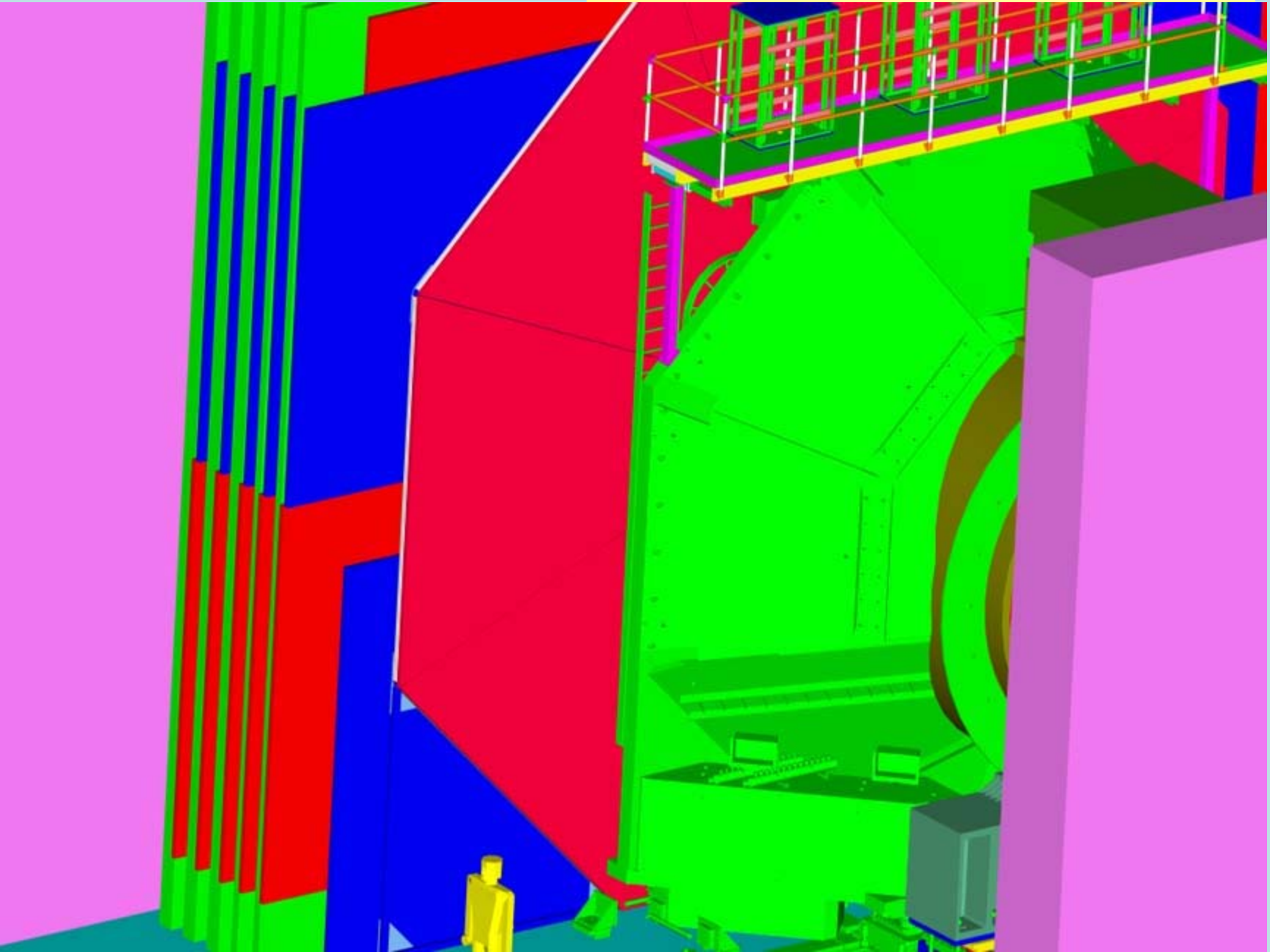
½" SPACERS HAVE BEEN REMOVED

RPC1A ELECTRONICS BOXES ARE NESTED IN BETWEEN RPC1B STRUCTURE

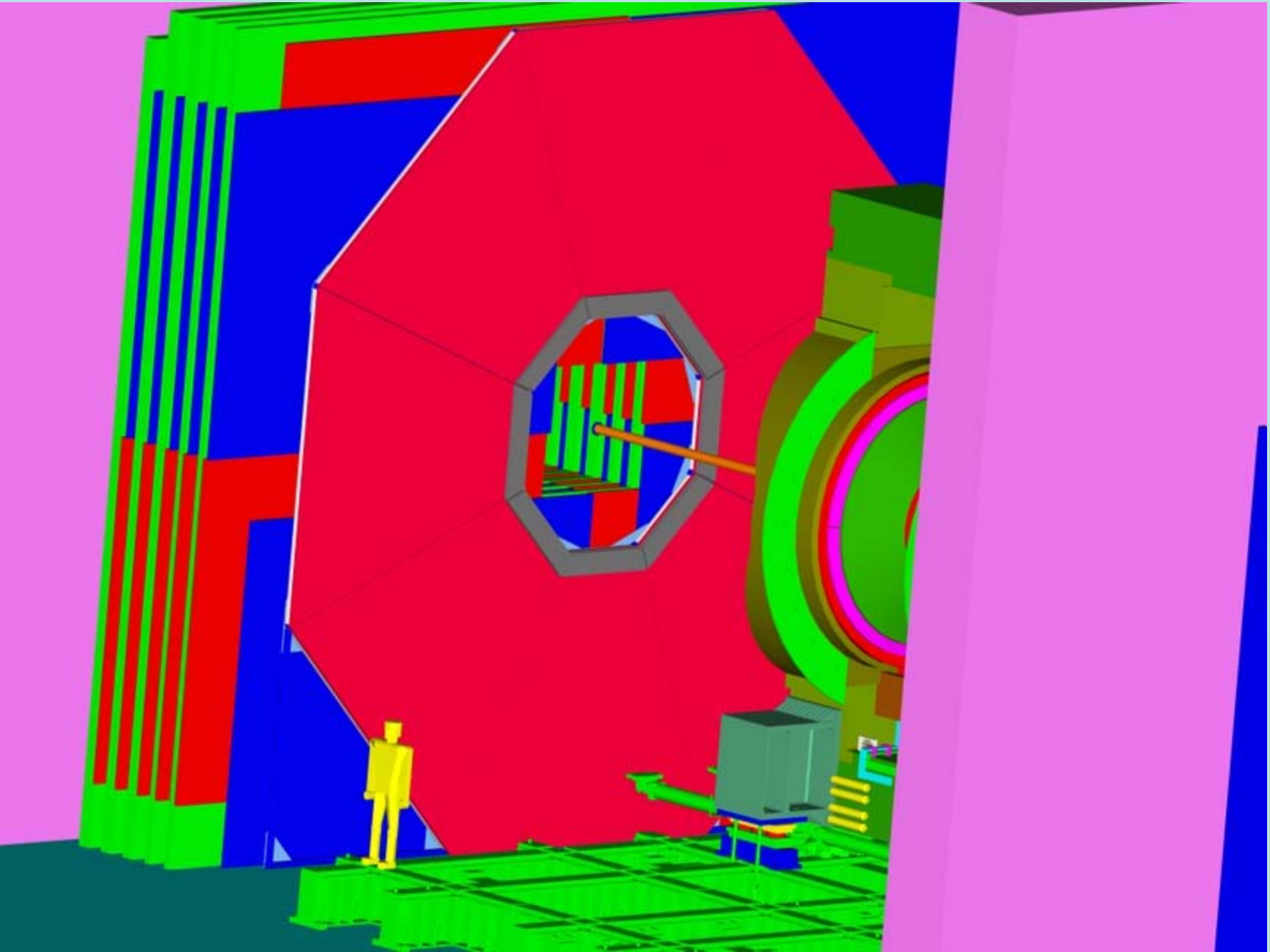
SOUTH RPC1 INSTALLED



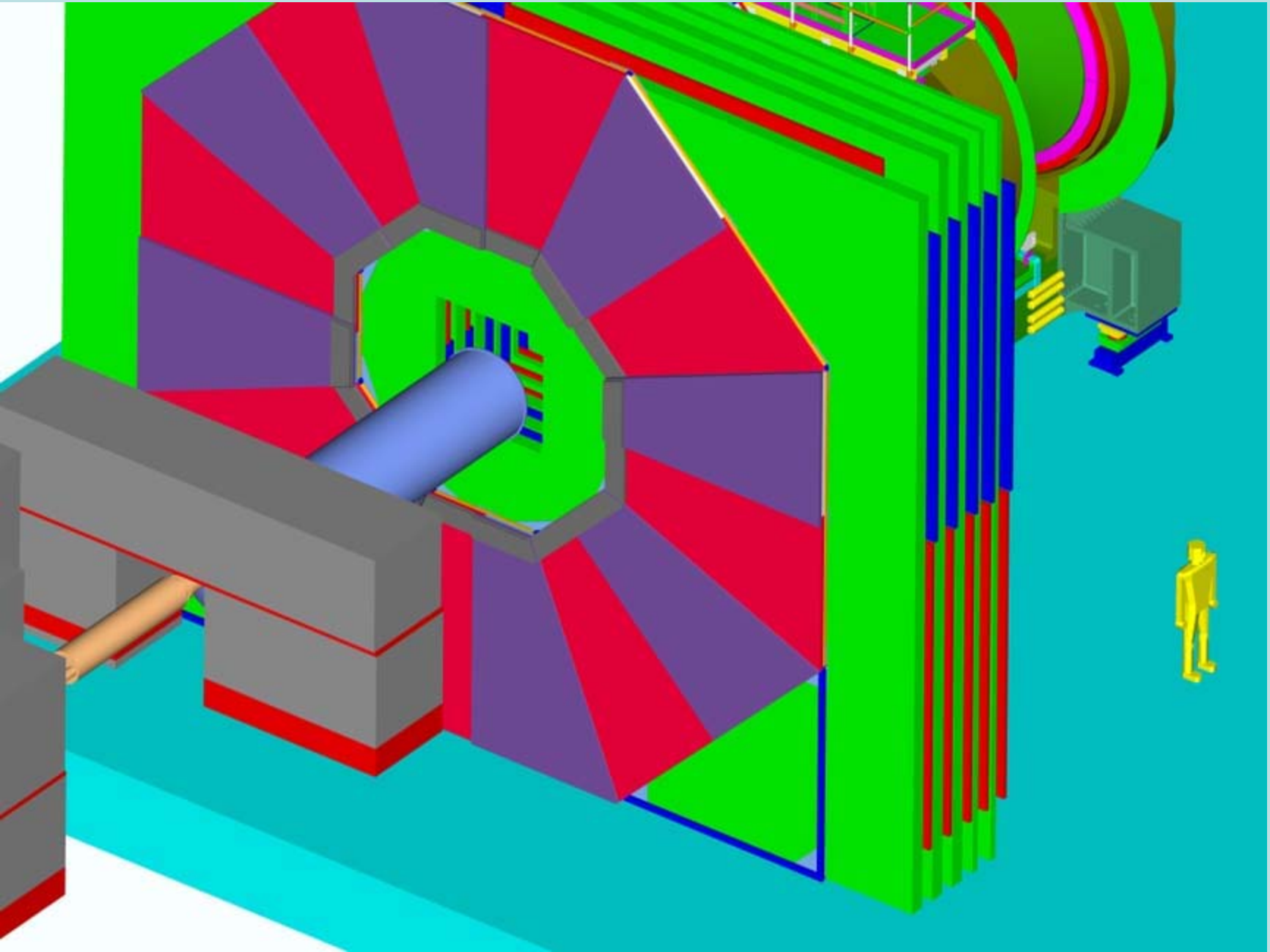
SOUTH RPC2 – WITH SOUTH muTR



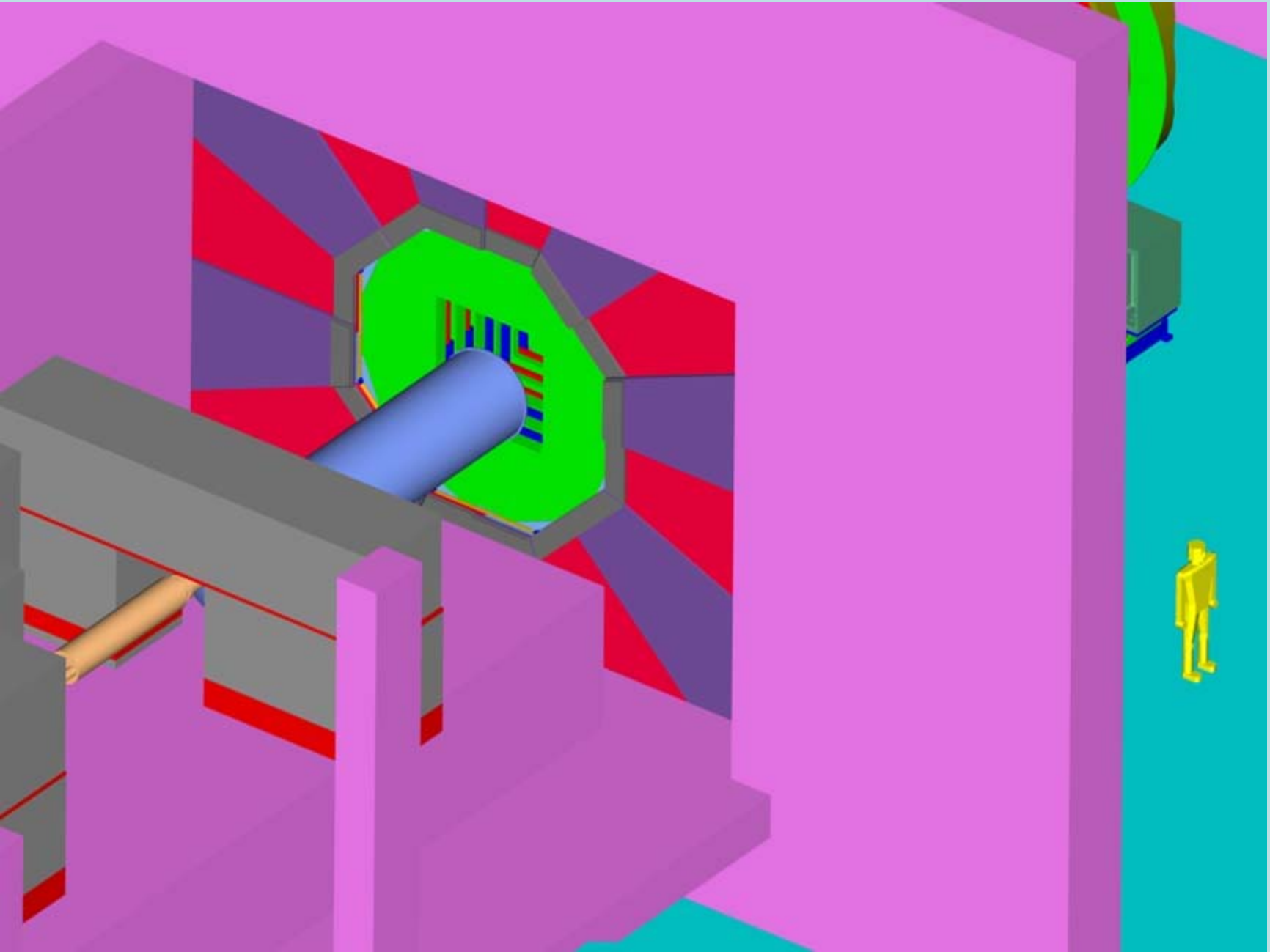
SOUTH RPC2 – WITHOUT SOUTH muTR



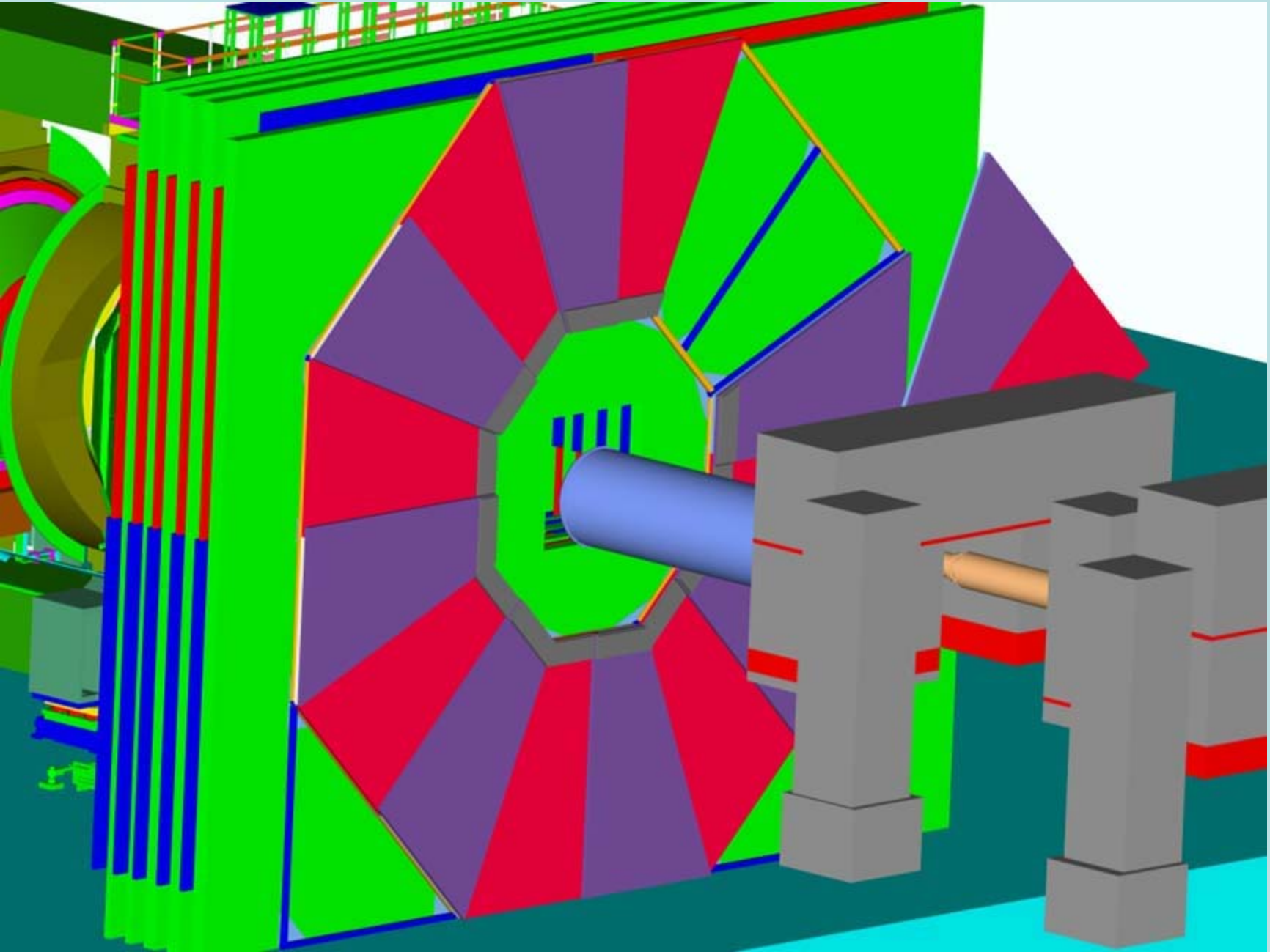
SOUTH RPC3 – WALL TURNED OFF



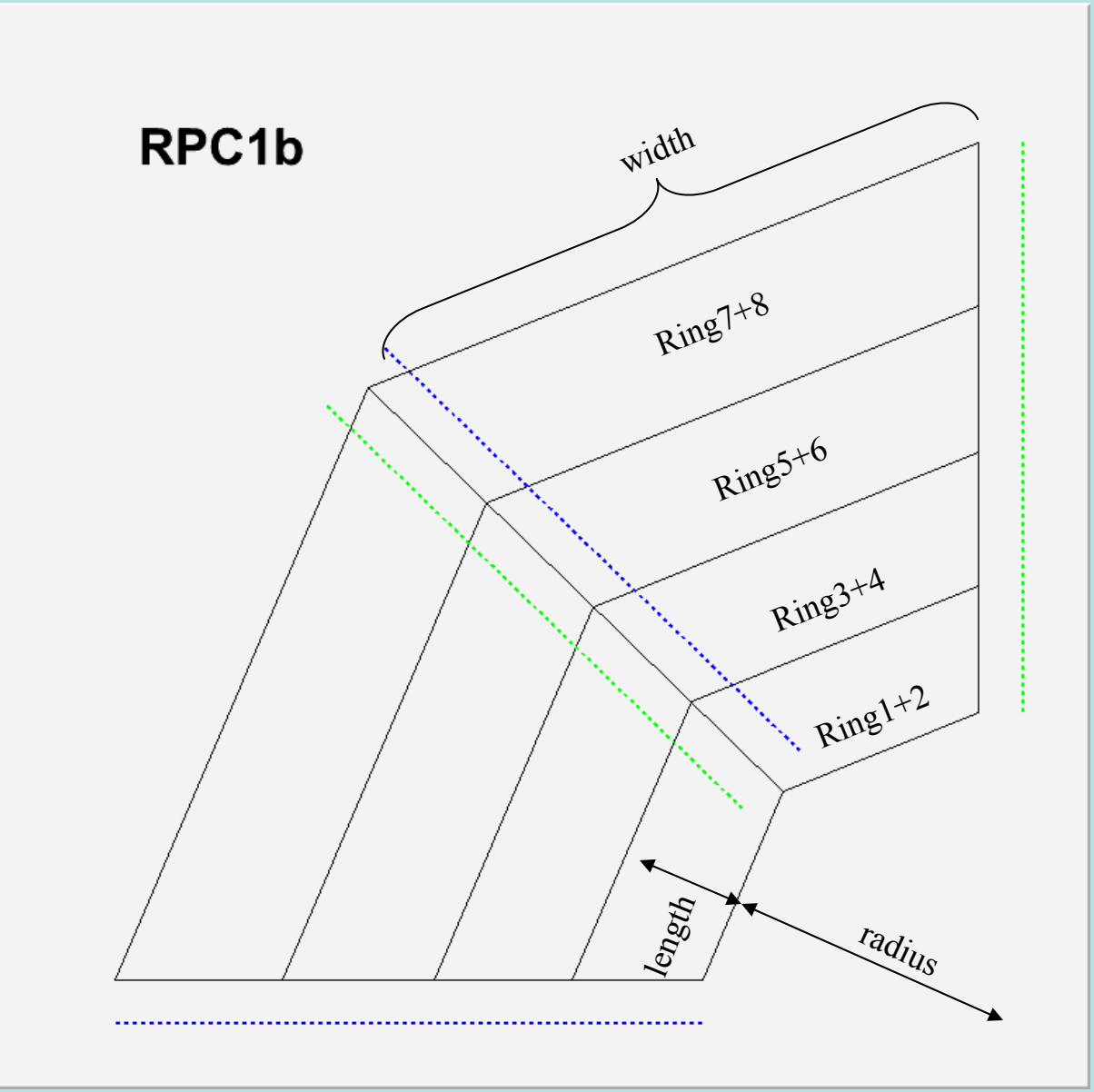
SOUTH RPC3 – WALL TURNED ON



SOUTH RPC3 – OCTANT REMOVED



- ϕ acceptance most important → overlap octants by 6cm each → height: 56 mm
- Instead of 8 rings 4 rings → two split gaps between ring1+2/ring 3+4 and ring 5+6/ring 7+8



		RPC1b	
	theta (deg)	radius	width
possible			
	34.45	1068.6	885.3
ring 8		strips: 208.5 x 12.0 (74)	
	31.69		
ring 7			
	28.92	860.9	713.2
ring 6		strips: 186.6 x 12.0 (60)	
	26.16		
ring 5			
	23.40	674.2	558.6
ring 4		strips: 171.7 x 12.0 (47)	
	20.64		
ring 3			
	17.88	502.6	416.3
ring2		strips: 161.3 x 12.0 (35)	
	15.12		
ring1			
	12.36	341.3	282.7
possible			
		split gaps: ring 2 and 3 + ring 6.and 7	

Infrastructure Work

Technical Support 2006

CAD/RHIC PHENIX infrastucture related mechanical and electrical support

Roof leak repairs	*?*
Door Latch maintenance for security	*Requested*
Run 7 prep support	*On-going*

Trailer repairs

PHENIX

Technical Support 2006

Trailer Work Areas

This Week/ Next Week

- Bowl Games (Monday New Year's Holiday)
- HBD, TOF W, RXNP, MPC N electronics commissioning
- HBD $(BD)^2$ [=$H(BD)^3$?] fabrication/test/installation
- PHENIX Procedure review continued
- Prepare for run 6.9 → 7
- Interlocks for CM Lift table [Up is done, Down is in progress], wing hinges

New Business

Get your requests in early for shutdown 2007 work

PHENIX

Technical Support 2006

Where To Find PHENIX Technical Info

Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm